WHAT IS CLAIMED IS:

1 1. A compound having the formula:

- 5 or pharmaceutically acceptable salt, ester or prodrug thereof,
- 6 wherein:

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7 D-Het is selected from the group consisting of:

9	A is selected from the group consisting of:
10	a) carbonyl, b) C_{1-6} alkyl, c) C_{2-6} alkenyl d) -C(O)- C_{1-6} alkyl, and
11	e) -C(O)- C_{2-6} alkenyl,
12	wherein
13	i) 0-2 carbon atoms of the C_{1-6} alkyl and C_{2-6} alkenyl groups in any
14	of b) – e) optionally are replaced by a moiety selected from the
15	group consisting of O, S(O) _p , and NR ¹¹ , and
16	ii) any of b) – e) optionally is substituted with one or more R^{12}
17	groups;
18	B is selected from the group consisting of:
19	a) -C(O)NH-, b) -C(S)NH-, c) -NHC(O)-, d) -NHC(S)-, e) -S(O) ₂ NH-,
20	f) -NHS(O) ₂ -, g) -OC(O)NH-, h) -OC(S)NH-, i) -NHC(O)NH-, j) -NHC(S)NH-,
21	k) -NHC(O)O-, l) -NHC(S)O-, and m) -NR ¹¹ -;
22	n is 0 or 1;
23	D is selected from the group consisting of:
24	a) -CH ₂ -, b) -C(O)-, c) -C(S)-, d) -C(=NOR ¹¹)-, e) -CH ₂ CH ₂ -, f) -OCH ₂ -,
25	g) -SCH ₂ -, h) -S(O)CH ₂ -, i) -S(O) ₂ CH ₂ -, j) -NR ¹¹ CH ₂ -, k) -C(O)CH ₂ -,
26	1) $-C(S)CH_{2}$ -, and m) $-C(=NOR^{11})CH_{2}$ -;
27	E is selected from the group consisting of:
28	a)
	R ¹⁹
29	· ;
30	b)
	R ²¹ R ²¹
31	$R^{2^{i}}$ $R^{2^{1}}$;
32	c)

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- d) 5-10 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with one or more R¹² groups;

 e) C₅₋₁₀ saturated, unsaturated, or aromatic carbocycle, optionally substituted
 - e) C₅₋₁₀ saturated, unsaturated, or aromatic carbocycle, optionally substituted with one or more R¹² groups;
 - f) C_{1-8} alkyl,
 - g) C_{2-8} alkenyl,
 - h) C₂₋₈ alkynyl,
 - i) C₁₋₈ alkoxy,
- C_{1-8} alkylthio,
 - k) C_{1-8} acyl,
- 45 l) $S(O)_rR^{11}$; and
- 46 m) hydrogen,

wherein any of f(x) - k) optionally is substituted with

- i) one or more R¹² groups;
 - ii) 5-6 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with one or more R¹² groups; or
 - iii) C_{5-10} saturated, unsaturated, or aromatic carbocycle, optionally substituted with one or more R^{12} groups;

M is selected from the group consisting of:

- a) -C(O)-, b) -C(=NOR¹¹)-, c) -CH(-OR¹¹)-, d) -NR¹¹-CH₂-, e) -CH₂-NR¹¹-,
- 57 f) -CH(NR¹¹R¹¹)-, g) -C(=NNR¹¹R¹¹)-, h) -NR¹¹-C(O)-, i) -C(O)NR¹¹-, and
- j) -C(=NR¹¹)-;
- R is selected from the group consisting of H and C_{1-6} alkyl;
- R¹ is selected from the group consisting of:

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a) H, b) Cl, c) F, d) Br, e) I, f) -NR<sup>11</sup>R<sup>11</sup> g) -NR<sup>11</sup>C(O)R<sup>11</sup>, h) -OR<sup>11</sup>,
61
                              i) -OC(O)R<sup>11</sup>, j) -OC(O)OR<sup>11</sup>, k) -OC(O)NR<sup>11</sup>R<sup>11</sup>, l) -O-C<sub>1-6</sub> alkyl-R<sup>12</sup>,
62
                              m) -OC(O)-C<sub>1-6</sub> alkyl-R<sup>12</sup>, n) -OC(O)O-C<sub>1-6</sub> alkyl-R<sup>12</sup>,
63
                              o) -OC(O)NR<sup>11</sup>-C<sub>1-6</sub> alkyl-R<sup>12</sup>, p) C<sub>1-6</sub> alkyl, q) C<sub>1-6</sub> alkenyl, r) C<sub>1-6</sub> alkynyl,
64
                                         wherein any of l) - r) optionally is substituted with one or more R<sup>12</sup>
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66
                                         groups;
                    R<sup>2</sup> is H;
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                    R<sup>3</sup> is selected from the group consisting of:
68
                               a) H, b) -OR^{11}, c) -O-C_{1-6} alkyl-R^{12}, d) -OC(O)R^{11}, e) -OC(O)-C_{1-6} alkyl-R^{12},
69
                              f) -OC(O)OR^{11}, g) -OC(O)O-C_{1-6} alkyl-R^{12}, h) -OC(O)NR^{11}R^{11},
70
                              i) -OC(O)NR<sup>11</sup>-C<sub>1-6</sub> alkyl-R<sup>12</sup>, and
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72
                              j)
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                    alternatively, R<sup>2</sup> and R<sup>3</sup> taken together form a carbonyl group;
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                    R<sup>4</sup> is selected from the group consisting of:
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                               a) H, b) R^{11}, c) -C(O)R^{11}d) -C(O)OR^{11} e) -C(O)NR^{11}R^{11}, f) -C_{1-6} alkyl-G-R<sup>11</sup>,
76
                               g) -C_{2-6} alkenyl-G-R<sup>11</sup>, and h) -C_{2-6} alkynyl-G-R<sup>11</sup>;
77
                    alternatively R<sup>3</sup> and R<sup>4</sup>, taken together with the atoms to which they are bonded, form:
 78
                                                              R11_N
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G is selected from the group consisting of: 80

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k) $-NR^{11}C(O)O_{-}$, l) $-NR^{11}C(O)NR^{11}_{-}$, m) $-NR^{11}C(=NR^{11})NR^{11}_{-}$, and o) $-S(O)_{0}$ -; 83

R⁵ is selected from the group consisting of:

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a) R^{11}, b) -OR^{11}, c) -NR^{11}R^{11}, d) -O-C_{1-6} alkyl-R^{12}, e) -C(O)-R^{11},
85
                           f) -C(O)-C<sub>1-6</sub> alkyl-R<sup>12</sup>, g) -OC(O)-R<sup>11</sup>, h) -OC(O)-C<sub>1-6</sub> alkyl-R<sup>12</sup>,
86
                           i) -OC(O)O-R^{11}, j) -OC(O)O-C_{1-6} alkyl-R^{12}, k) -OC(O)NR^{11}R^{11},
87
                           1) -OC(O)NR^{11}-C_{1-6} alkyl-R^{12}, m) -C(O)-C_{2-6} alkenyl-R^{12}, and
88
                           n) -C(O)-C_{2-6} alkynyl-R^{12};
89
                 alternatively, R<sup>4</sup> and R<sup>5</sup>, taken together with the atoms to which they are bonded, form:
90
 91
                           wherein
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 93
                                    O is CH or N, and
                                    R^{23} is -OR^{11}, or R^{11}:
 94
                 R<sup>6</sup> is selected from the group consisting of:
 95
                           a) -OR^{11}, b) -C_{1-6} alkoxy-R^{12}, c) -C(O)R^{11}, d) -OC(O)R^{11}, e) -OC(O)OR^{11},
 96
                           f) -OC(O)NR^{11}R^{11}, and g) -NR^{11}R^{11};
 97
                  alternatively, R<sup>5</sup> and R<sup>6</sup> taken together with the atoms to which they are attached form a
 98
         5-membered ring by attachment to each other through a linker selected from the group consisting
 99
100
         of:
                           a) -OC(R<sup>12</sup>)<sub>2</sub>O-, b) -OC(O)O-, c) -OC(O)NR<sup>11</sup>-, d) -NR<sup>11</sup>C(O)O-.
101
                           e) -OC(O)NOR<sup>11</sup>-, f) -NOR<sup>11</sup>-C(O)O-, g) -OC(O)NNR<sup>11</sup>R<sup>11</sup>-,
102
                           h) -NNR^{11}R^{11}-C(O)O-, i) -OC(O)C(R^{12})_2-, j) -C(R^{12})_2C(O)O-, k) -OC(S)O-,
103
                           1) -OC(S)NR^{11}-, m) -NR^{11}C(S)O-, n) -OC(S)NOR^{11}-, o) -NOR^{11}-C(S)O-,
104
                           p) -OC(S)NNR^{11}R^{11}, q) -NNR^{11}R^{11}-C(S)O-, r) -OC(S)C(R^{12})_2-, and
105
                           s) -C(R^{12})_2C(S)O-:
106
                  alternatively, M, R<sup>5</sup>, and R<sup>6</sup> taken together with the atoms to which they are attached
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form:

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wherein J is selected from the group consisting of O and NR¹¹;

R6' is selected from the group consisting of 111 a) -H, b) -C₁₋₄ alkyl, c) C₂₋₄ alkenyl, which can be further substituted with C₁₋₁₂ 112 alkyl or one or more halogens, d) C_{2.4} alkynyl, which can be further substituted 113 with C₁₋₁₂ alkyl or one or more halogens, e) aryl or heteroaryl, which can be 114 further substituted with C_{1-12} alkyl or one or more halogens, f) -C(O)H, g) -115 COOH, h) -CN, i) -COOR¹¹, j) -C(O)NR¹¹R¹¹, k) -C(O)R¹¹, and l) -C(O)SR¹¹, 116 wherein b) is further substituted with one or more substituents selected from the 117 group consisting of aa) -OR¹¹, bb) halogen, cc) -SR¹¹, dd) C₁₋₁₂ alkyl, which can 118 be further substituted with halogen, hydroxyl, C₁₋₆ alkoxy, or amino, ee) -OR¹¹, 119 ff) -SR¹¹, gg) -NR¹¹R¹¹, hh) -CN, ii)-NO₂, jj) -NC(O)R¹¹, kk) -COOR¹¹, ll) -N₃, 120 mm) =N-O-R¹¹, nn) =NR¹¹, oo) =N-NR¹¹R¹¹, pp) =N-NH-C(O)R¹¹, and qq) =N-

alternatively R6 and R6' are taken together with the atom to which they are attached to form an epoxide, a carbonyl, an olefin, or a substituted olefin, or a C3-C7 carbocyclic, carbonate, or carbamate, wherein the nitrogen of said carbamate can be further substituted with a C₁-C₆ alkyl;

R⁷ is selected from the group consisting of:

 $NH-C(O)NR^{11}R^{11}$;

- a) C₁₋₆ alkyl, b) C₂₋₆ alkenyl, and c) C₂₋₆ alkynyl, 128
- wherein any of a) c) optionally is substituted with one or more \mathbb{R}^{12} 129

130 groups;

- R⁸ is selected from the group consisting of H and -C(O)R¹¹; 131
- R⁹ is selected from the group consisting of H, OH, and OR¹¹; 132
- R¹⁰ is selected from the group consisting of: 133
- a) H, b) R^{11} , c) $-C_{1-6}$ alkyl-G- R^{12} , d) $-C_{2-6}$ alkenyl-G- R^{12} , and 134
- e) -C₂₋₆ alkynyl-G-R¹². 135

136	wherein the C_{1-6} -alkyl, C_{2-6} alkenyl, and C_{2-6} alkynyl group in any of
137	c) - e) optionally is substituted with one or more R ¹² groups;
138	R ¹¹ , at each occurrence, independently is selected from the group consisting of:
139	a) H, b) C ₁₋₆ alkyl, c) C ₂₋₆ alkenyl, d) C ₂₋₆ alkynyl, e) C ₆₋₁₀ saturated, unsaturated,
140	or aromatic carbocycle, f) 3-12 membered saturated, unsaturated, or aromatic
141	heterocycle containing one or more heteroatoms selected from the group
142	consisting of nitrogen, oxygen, and sulfur, g) -C(O)-C ₁₋₆ alkyl,
143	h) -C(O)-C ₂₋₆ alkenyl, i) -C(O)-C ₂₋₆ alkynyl, j) -C(O)-C ₆₋₁₀ saturated, unsaturated,
144	or aromatic carbocycle, k) -C(O)-3-12 membered saturated, unsaturated, or
145	aromatic heterocycle containing one or more heteroatoms selected from the group
146	consisting of nitrogen, oxygen, sulfur, l) -C(O)O-C ₁₋₆ alkyl,
147	m) -C(O)O-C ₂₋₆ alkenyl, n) -C(O)O-C ₂₋₆ alkynyl, o) -C(O)O-C ₆₋₁₀ saturated,
148	unsaturated, or aromatic carbocycle, p) -C(O)O-3-12 membered saturated,
149	unsaturated, or aromatic heterocycle containing one or more heteroatoms selected
150	from the group consisting of nitrogen, oxygen, and sulfur, and q)
151	$C(O)NR^{13}R^{13}$,
152	wherein any of b) – p) optionally is substituted with one or more R^{12}
153	groups,
154	alternatively, NR ¹¹ R ¹¹ forms a 3-7 membered saturated, unsaturated or aromatic ring
155	including the nitrogen atom to which the R11 groups are bonded and optionally one or more
156	moieties selected from the group consisting of: O, S(O) _p , and NR ¹⁵ ;
157	R ¹² is selected from the group consisting of:
158	a) R^{14} , b) C_{1-8} alkyl, c) C_{2-8} alkenyl, d) C_{2-8} alkynyl, e) C_{3-12} saturated,
159	unsaturated, or aromatic carbocycle, f) 3-12 membered saturated, unsaturated, or
160	aromatic heterocycle containing one or more heteroatoms selected from the group
161	consisting of nitrogen, oxygen, and sulfur, and g) -NR ¹⁵ C(O)OR ¹⁵ ,
162	wherein any of b) – f) optionally is substituted with one or more \mathbb{R}^{14}
163	groups;
164	R ¹³ , at each occurrence, independently is selected from the group consisting of:
165	a) H, b) C_{1-6} alkyl, c) C_{2-6} alkenyl, d) C_{2-6} alkynyl, e) C_{3-10} saturated, unsaturated,

167	heterocycle containing one or more heteroatoms selected from the group
168	consisting of nitrogen, oxygen, and sulfur,
169	wherein any of b) – f) optionally is substituted with one or more moieties selected from the
170	group consisting of:
171	carbonyl; formyl; F; Cl; Br; I; CN; NO ₂ ; OR ¹⁵ ; -S(O) _p R ¹⁵ ;
172	$-C(O)R^{15}$; $-C(O)OR^{15}$; $-OC(O)R^{15}$; $-C(O)NR^{15}R^{15}$;
173	$-OC(O)NR^{15}R^{15}$; $-C(=NR^{15})R^{15}$; $-C(R^{15})(R^{15})OR^{15}$;
174	$-C(R^{15})_2OC(O)R^{15}$; $-C(R^{15})(OR^{15})(CH_2)_rNR^{15}R^{15}$; $-NR^{15}R^{15}$;
175	-NR ¹⁵ OR ¹⁵ ; -NR ¹⁵ C(O)R ¹⁵ ; -NR ¹⁵ C(O)OR ¹⁵ ; -NR ¹⁵ C(O)NR ¹⁵ R ¹⁵
176	$-NR^{15}S(O)_{t}R^{15}; -C(OR^{15})(OR^{15})R^{15}; -C(R^{15})_{2}NR^{15}R^{15}; =NR^{15};$
177	-C(S)NR ¹⁵ R ¹⁵ ; -NR ¹⁵ C(S)R ¹⁵ ; -OC(S)NR ¹⁵ R ¹⁵ ; -NR ¹⁵ C(S)OR ¹⁵ ;
178	-NR ¹⁵ C(S)NR ¹⁵ R ¹⁵ ; -SC(O)R ¹⁵ ; C_{1-8} alkyl, C_{2-8} alkenyl;
179	C_{2-8} alkynyl; C_{1-8} alkoxy; C_{1-8} alkylthio; C_{1-8} acyl; saturated,
180	unsaturated, or aromatic C_{3-10} carbocycle; and saturated,
181	unsaturated, or aromatic 3-10 membered heterocycle containing
182	one or more heteroatoms selected from the group consisting of
183	nitrogen, oxygen, and sulfur,
184	alternatively, NR 13R 13 forms a 3-10 membered saturated, unsaturated or aromatic ring
185	including the nitrogen atom to which the R13 groups are attached and optionally one or more
186	moieties selected from the group consisting of O, S(O) _p , NR ¹⁵ , and N;
187	alternatively, CR ¹³ R ¹³ forms a carbonyl group;
188	R ¹⁴ , at each occurrence, is selected from the group consisting of:
189	a) H, b) carbonyl, c) F, d) Cl, e) Br, f) I, g) (CR ¹³ R ¹³) _r CF ₃ , h) (CR ¹³ R ¹³) _r CN,
190	i) $(CR^{13}R^{13})_rNO_2$, j) $(CR^{13}R^{13})_rNR^{13}(CR^{13}R^{13})_tR^{16}$, k) $(CR^{13}R^{13})_rOR^{16}$,
191	l) $(CR^{13}R^{13})_rS(O)_p(CR^{13}R^{13})_tR^{16}$, m) $(CR^{13}R^{13})_rC(O)(CR^{13}R^{13})_tR^{16}$,
192	n) $(CR^{13}R^{13})_{t}OC(O)$ $(CR^{13}R^{13})_{t}R^{16}$, o) $(CR^{13}R^{13})_{t}SC(O)(CR^{13}R^{13})_{t}R^{16}$,
193	p) $(CR^{13}R^{13})_{r}C(O)O(CR^{13}R^{13})_{t}R^{16}$, q) $(CR^{13}R^{13})_{r}NR^{13}C(O)(CR^{13}R^{13})_{t}R^{16}$,
194	r) $(CR^{13}R^{13})_rC(O)NR^{13}(CR^{13}R^{13})_tR^{16}$, s) $(CR^{13}R^{13})_rC(=NR^{13})(CR^{13}R^{13})_tR^{16}$,
195	t) $(CR^{13}R^{13})_rC(=NNR^{13}R^{13})(CR^{13}R^{13})_tR^{16}$

196	u) $(CR^{13}R^{13})_{r}C(=NNR^{13}C(O)R^{13})(CR^{13}R^{13})_{t}R^{16}$,
197	v) $(CR^{13}R^{13})_{r}C(=NOR^{16})(CR^{13}R^{13})_{t}R^{16}$,
198	w) $(CR^{13}R^{13})_tNR^{13}C(O)O(CR^{13}R^{13})_tR^{16}$,
199	x) $(CR^{13}R^{13})_{r}OC(O)NR^{13}(CR^{13}R^{13})_{t}R^{16}$
200	v) (CR ¹³ R ¹³) _r NR ¹³ C(O)NR ¹³ (CR ¹³ R ¹³) _t R ¹⁶ ,
201	z) $(CR^{13}R^{13})_rNR^{13}S(O)_p(CR^{13}R^{13})_tR^{16}$, aa) $(CR^{13}R^{13})_rS(O)_pNR^{13}(CR^{13}R^{13})_tR^{16}$,
	bb) $(CR^{13}R^{13})_{t}NR^{13}S(O)_{p}NR^{13}(CR^{13}R^{13})_{t}R^{16}$, cc) $(CR^{13}R^{13})_{t}NR^{13}R^{13}$,
202	•
203	dd) C_{1-6} alkyl, ee) C_{2-6} alkenyl, ff) C_{2-6} alkynyl, gg) $(CR^{13}R^{13})_{\Gamma}$ - C_{3-10} saturated,
204	unsaturated, or aromatic carbocycle, and hh) (CR 13R 13)r-3-10 membered
205	saturated, unsaturated, or aromatic heterocycle containing one or more
206	heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,
207	wherein any of dd) – hh) optionally is substituted with one or more \mathbb{R}^{16}
208	groups;
209	alternatively, two R ¹⁴ groups may form -O(CH ₂) _s O-;
210	R ¹⁵ is selected from the group consisting of:
211	a) H, b) C ₁₋₆ alkyl, c) C ₂₋₆ alkenyl, d) C ₂₋₆ alkynyl, e) C ₃₋₁₀ saturated,
212	unsaturated, or aromatic carbocycle, f) 3-10 membered saturated, unsaturated, or
213	aromatic heterocycle containing one or more heteroatoms selected from the group
214	consisting of nitrogen, oxygen, and sulfur, g) -C(O)-C ₁₋₆ alkyl,
215	h) -C(O)-C ₁₋₆ alkenyl, g) -C(O)-C ₁₋₆ alkynyl, i) -C(O)-C ₃₋₁₀ saturated,
216	unsaturated, or aromatic carbocycle, and j) -C(O)-3-10 membered saturated,
217	unsaturated, or aromatic heterocycle containing one or more heteroatoms selected
218	from the group consisting of nitrogen, oxygen, and sulfur,
219	wherein any of b) $-j$) optionally is substituted with one or more moieties
220	selected from the group consisting of H; F; Cl; Br; I; CN; NO ₂ ; OH; NH ₂ ;
221	$NH(C_{1-6} \text{ alkyl}); N(C_{1-6} \text{ alkyl})_2; C_{1-6} \text{ alkoxy}; \text{ aryl}; \text{ substituted aryl};$
222	heteroaryl; substituted heteroaryl; and C ₁₋₆ alkyl, optionally substituted
223	with one or more moieties selected from the group consisting of aryl,
224	substituted aryl, heteroaryl, substituted heteroaryl, F, Cl, Br, I, CN, NO2,
225	and OH;

R¹⁶, at each occurrence, independently is selected from the group consisting of: 226 a) R¹⁷, b) C₁₋₆ alkyl, c) C₂₋₆ alkenyl, d) C₂₋₆ alkynyl, e) -C₃₋₁₀ saturated, 227 228 unsaturated, or aromatic carbocycle, and f) -3-10 membered saturated. 229 unsaturated, or aromatic heterocycle containing one or more heteroatoms selected 230 from the group consisting of nitrogen, oxygen, and sulfur, wherein any of b) – f) optionally is substituted with one or more R^{17} 231 232 groups; R¹⁷, at each occurrence, independently is selected from the group consisting of: 233 a) H, b) carbonyl, c) F, d) Cl, e) Br, f) I, g) (CR 13 R 13)rCF3, h) (CR 13 R 13)rCN, 234 i) (CR¹³R¹³)_rNO₂, j) (CR¹³R¹³)_r(CR¹³R¹³), k) (CR¹³R¹³)_rOR¹¹. 235 1) $(CR^{13}R^{13})_rS(O)_pR^{13}$, m) $(CR^{13}R^{13})_rC(O)R^{13}$, n) $(CR^{13}R^{13})_rC(O)OR^{13}$, 236 o) $(CR^{13}R^{13})_{r}OC(O)R^{13}$, p) $(CR^{13}R^{13})_{r}NR^{13}C(O)R^{13}$, 237 q) $(CR^{13}R^{13})_{r}C(O)NR^{13}R^{13}$, r) $(CR^{13}R^{13})_{r}C(=NR^{13})R^{13}$. 238 s) $(CR^{13}R^{13})_rNR^{13}C(O)NR^{13}R^{13}$, t) $(CR^{13}R^{13})_rNR^{13}S(O)_pR^{13}$, 239 u) $(CR^{13}R^{13})_rS(O)_pNR^{13}R^{13}$, v) $(CR^{13}R^{13})_rNR^{13}S(O)_pNR^{13}R^{13}$, w) C_{1-6} alkyl, 240 x) C₂₋₆ alkenyl, y) C₂₋₆ alkynyl, z) (CR¹³R¹³)_r-C₃₋₁₀ saturated, unsaturated, or 241 aromatic carbocycle, and aa) (CR¹³R¹³)_r-3-10 membered saturated, unsaturated, 242 243 or aromatic heterocycle containing one or more heteroatoms selected from the 244 group consisting of nitrogen, oxygen, and sulfur, 245 wherein any of w) – aa) optionally is substituted with one or more moieties selected from the group consisting of R¹³; F; Cl; Br; I; CN; NO₂; 246 -OR 13 ; -NH $_2$; -NH(C $_{1\text{-}6}$ alkyl); -N(C $_{1\text{-}6}$ alkyl) $_2$; C $_{1\text{-}6}$ alkoxy; C $_{1\text{-}6}$ alkylthio; 247 248 and C₁₋₆ acyl; R¹⁸, at each occurrence, independently is selected from the group consisting of: 249 a) H, b) OR¹⁵, c) -O-C₁₋₆ alkyl-OC(O)R¹⁵, d) -O-C₁₋₆ alkyl-OC(O)OR¹⁵, 250 e) -O- C_{1-6} alkyl-OC(O)NR¹⁵R¹⁵, f) -O- C_{1-6} alkyl-C(O)NR¹⁵R¹⁵, 251 g) -O-C₁₋₆ alkyl-NR¹⁵C(O)R¹⁵, h) -O-C₁₋₆ alkyl-NR¹⁵C(O)OR¹⁵, 252 i) -O-C₁₋₆ alkyl-NR¹⁵C(O)NR¹⁵R¹⁵, j) -O-C₁₋₆ alkyl-NR¹⁵C(=NH)NR¹⁵R¹⁵, 253 k) $-O-C_{1-6}$ alkyl-S(O)₀R¹⁵, l) $-O-C_{2-6}$ alkenyl-OC(O)R¹⁵, 254 m) -O-C₂₋₆ alkenyl-OC(O)OR¹⁵, n) -O-C₂₋₆ alkenyl-OC(O)NR¹⁵R¹⁵, 255

256	o) -O- C_{2-6} alkenyl-C(O)NR ¹⁵ R ¹⁵ , p) -O- C_{2-6} alkenyl-NR ¹⁵ C(O)R ¹⁵ ,
257	q) -O- C_{2-6} alkenyl-NR ¹⁵ C(O)OR ¹⁵ , r) -O- C_{2-6} alkenyl-NR ¹⁵ C(O)NR ¹⁵ R ¹⁵ ,
258	s) -O- C_{2-6} alkenyl-NR ¹⁵ C(=NH)NR ¹⁵ R ¹⁵ , t) -O- C_{2-6} alkenyl-S(O) _p R ¹⁵ ,
259	u) -O- C_{2-6} alkynyl-OC(O) R^{15} , v) -O- C_{2-6} alkynyl-OC(O)O R^{15} ,
260	w) -O- C_{2-6} alkynyl-OC(O)NR ¹⁵ R ¹⁵ , x) -O- C_{2-6} alkynyl-C(O)NR ¹⁵ R ¹⁵ ,
261	y) -O- C_{2-6} alkynyl- $NR^{15}C(O)R^{15}$, z) -O- C_{2-6} alkynyl- $NR^{15}C(O)OR^{15}$,
262	aa) -O- C_{2-6} alkynyl-NR ¹⁵ C(O)NR ¹⁵ R ¹⁵ ,
263	bb) -O- C_{2-6} alkynyl-NR ¹⁵ C(=NH)NR ¹⁵ R ¹⁵ , cc) -O- C_{2-6} alkynyl-S(O) _p R ¹⁵ ; and
264	dd) -NR ¹⁵ R ¹⁵ ;
265	alternatively, two R ¹⁸ groups taken together form =0, =NOR ¹⁵ , or =NNR ¹⁵ R ¹⁵ ;
266	R^{19} is R^{12} ;
267	R ²⁰ is selected from the group consisting of:
268	a) R ¹³ , b) F, c) Cl, d) Br, e) I, f) CN, g) NO ₂ , and h) -OR ¹¹ ;
269	alternatively, R ¹⁹ and R ²⁰ taken together are -O(CH ₂) _r O-;
270	R ²¹ , at each occurrence, independently is selected from the group consisting of:
271	a) H, b) F, c) Cl, d) Br, e) I, f) CN, g) $-OR^{11}$, h) NO_2 , i) $-NR^{11}R^{11}$, j) C_{1-6} alkyl,
272	k) C ₁₋₆ acyl, and l) C ₁₋₆ alkoxy;
273	R ²² is selected from the group consisting of:
274	a) C_{1-6} alkyl, b) C_{2-6} alkenyl, c) C_{2-6} alkynyl, d) C_{1-6} acyl, e) C_{1-6} alkoxy,
275	f) C_{1-6} alkylthio, g) saturated, unsaturated, or aromatic C_{5-10} carbocycle,
276	h) saturated, unsaturated, or aromatic 5-10 membered heterocycle containing one
277	or more heteroatoms selected from the group consisting of nitrogen, oxygen, and
278	sulfur, i) -O-C ₁₋₆ alkyl-saturated, unsaturated, or aromatic 5-10 membered
279	heterocycle containing one or more heteroatoms selected from the group
280	consisting of nitrogen, oxygen, and sulfur, j) -NR 11 -C $_{1-6}$ alkyl-saturated,
281	unsaturated, or aromatic 5-10 membered heterocycle containing one or more
282	heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,
283	k) saturated, unsaturated, or aromatic 10-membered bicyclic ring system
284	optionally containing one or more heteroatoms selected from the group consisting
285	of nitrogen, oxygen, and sulfur, l) saturated, unsaturated, or aromatic 13-
286	membered tricyclic ring system optionally containing one or more heteroatoms

287	selected from the group consisting of nitrogen, oxygen, and sulfur, m) -OR11,
288	n) $-NR^{11}R^{11}$, o) $S(O)_rR^{11}$, and p) R^{21} ,
289	wherein any of a) - l) optionally is substituted with one or more R ¹²
290	groups;
291	alternatively, R ²² and one R ²¹ group, taken together with the atoms to which they are
292	bonded, form a 5-7 membered saturated or unsaturated carbocycle, optionally substituted with
293	one or more R ¹² groups; or a 5-7 membered saturated or unsaturated heterocycle containing one
294	or more atoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally
295	substituted with one or more R ¹² groups;
296	R ²³ at each occurrence, independently is selected from the group consisting of:
297	a) hydrogen; b) an electron-withdrawing group; c) aryl; d) substituted aryl;
298	e) heteroaryl; f) substituted heteroaryl; and g) C_{1-6} alkyl, optionally substituted
299	with one or more R ¹² groups;
300	alternatively, any R ²³ and any R ²⁰ , taken together with the atoms to which they are
301	bonded, form a 5-7 membered saturated or unsaturated carbocycle, optionally substituted with
302	one or more R ¹² groups; or a 5-7 membered saturated or unsaturated heterocycle containing one
303	or more atoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally
304	substituted with one or more R ¹² groups;
305	p, at each occurrence, is selected from the group consisting of 0, 1, and 2;
306	r, at each occurrence, is selected from the group consisting of 0, 1, and 2;
307	s, at each occurrence, is selected from the group consisting of 1, 2, 3, or 4;
308	t, at each occurrence, is selected from the group consisting of 0, 1, or 2;
309	u, at each occurrence, is selected from the group consisting of 1, 2, 3, 4, or 5; and,
310	v, at each occurrence, is selected from the group consisting of 0, 1, 2, or 3.
1	2 A compound having the formula selected from the group consisting of:

, and

2

3

2

3

6 or a pharmaceutically acceptable salt, ester, or prodrug thereof,

wherein A, B, n, D, E, R, R¹, R⁴, R⁵, R⁶, R⁶, R⁷, R⁸, R⁹, and R¹⁰ are as defined in claim 1.

1 3. A compound having the formula selected from the group consisting of:

5

2

$$R^{6}$$
, R^{7} , R^{10}

6 or a pharmaceutically acceptable salt, ester, or prodrug thereof,

7 wherein A, B, n, D, E, R, R^1 , R^4 , R^5 , R^6 , R^6 , R^7 , R^8 , R^9 , and R^{10} are as defined in claim 1.

1 4. A compound having the formula selected from the group consisting of:

4

2

8 or a pharmaceutically acceptable salt, ester, or prodrug thereof,

9 wherein A, B, n, E, R⁴, and R¹⁰ are as defined in claim 1.

1 5. A compound having the formula selected from the group consisting of:

OCH₃

$$H_3$$
C M CH_3 R^4 HO R^{10} R^{10}

, and

3

4

5

6

OCH₃

H₃C

8 or a pharmaceutically acceptable salt, ester, or prodrug thereof,

7

2

3

9 wherein A, B, n, E, R⁴, and R¹⁰ are as defined in claim 1.

CH₃

1 6. A compound having the formula selected from the group consisting of:

$$H_3$$
C
 H_3 C

5

$$H_3$$
C CH_3 H_3 C CH_3 CH_3

2

3

8 or a pharmaceutically acceptable salt, ester, or prodrug thereof,

9 wherein A, B, n, E, and R¹⁰ are as defined in claim 1.

1 7. A compound having the formula selected from the group consisting of:

$$H_3$$
C
 CH_3
 CH_3

$$H_3$$
C H_3 C

5

$$H_3$$
C CH_3 H_3 C CH_3 H_3 C CH_3 H_3 C CH_3 CH_3

$$H_3$$
C CH_3 HO CH_3 HO CH_3 CH_3

$$H_3C$$
 H_3C
 H_3C

8 or a pharmaceutically acceptable salt, ester, or prodrug thereof,

- 9 wherein A, B, n, E, and R¹⁰ are as defined in claim 1.
- 1 8. The compound according to any of claims 1-7, wherein n is 1.
- 1 9. The compound according to any of claims 1-8, wherein A-(B)_n-D is:
- 2 A-C(O)NH-D.
- 1 10. The compound according to any of claims 1-8, wherein A-(B)_n-D is:
- 2 $A-SO_2NH-D$.
- 1 11. The compound according to any of claims 1-8, wherein A-(B)_n-D is:
- 2 A-C(S)NH-D.
- 1 12. A compound having the formula

$$M \longrightarrow (CH_2)_m \longrightarrow B \longrightarrow O$$

- 3 or a pharmaceutically acceptable salt, ester, or prodrug thereof,
- 4 wherein M is a macrolide selected from the group consisting of

B is a linker selected from the group consisting of

15

16

18

19

20

O is a heterocyclic side chain selected from the group consisting of

22

2

$$H_2N$$
 H_2N
 H_2N
 H_2N
 H_2N
 H_2N
 H_3C
 H_3C

- 23 and m is an integer from 1-4.
 - 1 13. A compound having the formula selected from the group consisting of:

or a pharmaceutically acceptable salt, ester, or prodrug thereof.

- 1 14. A pharmaceutical composition comprising a compound according to any one of claims
- 2 1-13 and a pharmaceutically acceptable carrier.

- 1 15. A method of treating a microbial infection in a mammal comprising administering to the
- 2 mammal an effective amount of a compound according to any one of claims 1-13.

- 1 16. A method of treating a fungal infection in a mammal comprising administering to the
- 2 mammal an effective amount of a compound according to any one of claims 1-13.
- 1 17. A method of treating a parasitic disease in a mammal comprising administering to the
- 2 mammal an effective amount of a compound according to any one of claims 1-13.
- 1 18. A method of treating a proliferative disease in a mammal comprising administering to the
- 2 mammal an effective amount of a compound according to any one of claims 1-13.
- 1 19. A method of treating a viral infection in a mammal comprising administering to the
- 2 mammal an effective amount of a compound according to any one of claims 1-13.
- 1 20. A method of treating an inflammatory disease in a mammal comprising administering to
- 2 the mammal an effective amount of a compound according to any one of claims 1-13.
- 1 21. A method of treating a gastrointestinal motility disorder in a mammal comprising
- 2 administering to the mammal an effective amount of a compound according to any one of claims
- 3 1-13.
- 1 22. The method according to any one of claims 15-21 wherein the compound is administered
- 2 orally, parentally, or topically.
- 1 23. A method of synthesizing a compound according to any of claims 1-13.
- 1 24. A medical device containing a compound according to any one of claims 1-13.
- 1 25. The medical device according to claim 24, wherein the device is a stent.